

REMARKS

Reconsideration of this application, in view of the foregoing amendment and the following remarks, is respectfully requested.

Claims 1-16 were originally presented for consideration in this application. Claim 5 has been canceled above. Accordingly, claims 1-4 and 6-16 are currently pending in this application.

The following rejections were set forth in the Office Action:

1. Claims 1-16 stand rejected as being anticipated by art discussed in the specification; and
2. Claims 1-16 stand rejected under 35 USC §102(a) as being anticipated by a technical article of Yang, et al.

By the foregoing amendment, the following actions have been taken:

1. Claims 1 and 6 have been amended; and
2. Claim 5 has been canceled.

Turning now to the rejections of claims 1-16 as being anticipated by Yang, note that claim 1 has been amended above. The claim now recites that the method includes the step of inputting an output of the trained neural network to a geologic model.

Yang does mention that neural networks may be used in the field of geology, and Yang does describe inputting well location and historical production data to train a neural network to predict future production at a wellsite at a different location. However, Yang does not describe inputting an output of the neural network to any

geologic model. Therefore, Yang does not anticipate claim 1 as amended above, and the examiner is respectfully requested to withdraw the rejections of claim 1 and its dependents based on Yang.

Turning now to the art discussed in the specification, and used in anticipation rejections of claim 1 and its dependents, the training of neural networks is described in the paragraph beginning on line 17, page 6 of the specification. In this paragraph, the applicants state that methods of training neural networks are known in the art. For example, see the Stephenson patent (USPN 6,002,985) disclosed in an Information Disclosure Statement accompanying this Amendment.

However, the applicants did not admit that the methods, repeatedly referred to in the specification as incorporating inventive principles, were known in the prior art. For example, the prior art does not describe inputting an output of a neural network, trained according to the method of claim 1, to a geologic model as now required by the amended claim 1. Therefore, the examiner is respectfully requested to withdraw these rejections of claim 1 and its dependents.

Regarding the anticipation rejections of claim 9 and its dependents based on Yang, these rejections are respectfully traversed. Yang does describe optimizing the output of in-fill well drilling by predicting future output. However, Yang does not describe inputting an output of the neural network to a valuing model, or optimizing an output of the valuing model in response to input of a well system parameter to the neural network as recited in claim 9. Therefore, the examiner is respectfully requested to withdraw these rejections of claim 9 and its dependents.

Regarding the anticipation rejections of claim 9 and its dependents based on the art discussed in the specification, these rejections are respectfully traversed. As discussed above, the applicants have stated that neural network training methods are known in the prior art. However, the prior art does not describe inputting an output of

the neural network to a valuing model, or optimizing an output of the valuing model in response to input of a well system parameter to the neural network as recited in claim 9. Therefore, the examiner is respectfully requested to withdraw these rejections of claim 9 and its dependents.

In view of the foregoing amendment and remarks, all of the claims pending in this application are now seen to be in a condition for allowance. A Notice of Allowance of claims 1-4 and 6-16 is therefore earnestly solicited.

The examiner is hereby requested to telephone the undersigned attorney of record at (972) 516-0030 if such would expedite the prosecution of the application.

Respectfully submitted,

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